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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/773,293	02/09/2004	Tetsuo Taniguchi	247903US90CONT	8730
22850	7590	03/15/2005	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			NGUYEN, HUNG	
			ART UNIT	PAPER NUMBER
			2851	

DATE MAILED: 03/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/773,293	Applicant(s) TANIGUCHI, TETSUO	
	Examiner Hung Henry V. Nguyen	Art Unit 2851	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,26-43 and 49-61 is/are pending in the application.
- 4a) Of the above claim(s) 26-42, 48 and 52 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,43 and 52-61 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 09/618,550.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>11/8/04</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of group I (claims 1, 43, 52-61) in the reply filed on November 8, 2004 is acknowledged. The traversal is on the ground(s) that "a search and examination of the entire of application would not place a serious burden on the Examiner". This is not found persuasive because as clearly demonstrated in the Restriction Requirement sent October 8, 2004, while invention I (claims 1, 43, 52-61) is explicitly related to a method for forming patterns of a plurality of layers on a substrate using a plurality of exposure apparatuses; inventions II-V are drawn to an exposure apparatus for adjusting the image forming characteristics, selecting the exposure apparatus for performing exposure operation, controlling the distortion and controlling the velocity of the wafer and mask stages. As such, the distinct and separate searches are quite extensive and place serious burden on the Examiner in regard to both search and examination.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 43, 52-61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ushida et al (U.S.Pat. 4,734,746) in view of Nishi (U.S.Pat. 5,854,671).

With regard to claims 1, 43, 52-65, Ushida et al (fig.1) discloses an exposure method and apparatus using a plurality of exposure apparatuses (A and B) for exposing patterns of a plurality of layers on a substrate (see col.6, lines 1-3) comprising substantially all basic steps of the instant claims such as: the data DS₂ regarding the distortion of the projection lens (PL₂) of the exposure B is stored in the main control device (CNT₂) and the distortion information is sent to the main control device (CNT₁) or the main control device (CNT₂) of the exposure B receives distortion data of the exposure A so that the image forming characteristic of a first/or second exposure apparatus is adjusted based on the stored image forming characteristic of a second/or first exposure apparatus (see col.6, lines 10-41; col.7, lines 1 through col.10, line 62). In the other words, Ushida teaches that an exposure method which comprises two exposure apparatuses in which “the image forming characteristics of a first exposure apparatus is adjusted and consideration of an image correction capability of a second apparatus” as claimed. Ushida does not expressly disclose the one of the exposure apparatuses being a scanning type exposure apparatus and the other being a batch type exposure apparatus. However, this in itself does not make any inventive step. Nishi teaches a batch type projection exposure apparatus being used with a scanning type exposure apparatus to perform “Mix and Match method” (see col.6, lines 5-30 and abstract). It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teachings of Ushida and Nishi to obtain the invention as specified in the above claims. It would have been obvious to employ one exposure apparatus being a scanning type exposure apparatus and the other being a stationary type exposure

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apparatus as suggested by Nishi into the device/method of Usuda so that "it is possible to make the most of the advantages of both the step and repeat method and the step and scan method fully" and improve the quality of the images to be printed.

4. Claims 1, 43, 52-61 are rejected under 35 U.S.C. 102(e) as being unpatentable over Okamoto et al (U.S.Pat. 6,163,336) in view of Nishi (U.S.Pat. 5,854,671).

With regard to claims 1, 43, 52-61, Okamoto et al (fig.1) discloses an exposure method and apparatus comprising substantially all of the basic features of the instant claims including the distortion data of each exposure unit has been known and stored in the memory of a main controller system (6). Accordingly, the image forming characteristic of one exposure apparatus in a plurality of exposure apparatuses is adjusted to expose one layer of the substrate based on the stored image distortion capability of another exposure apparatus (see abstract of Okamoto, for example). Okamoto lacks to show the one of the exposure apparatuses being a scanning type exposure apparatus and the other being a batch type exposure apparatus. Nishi teaches an exposure method in which a batch type projection exposure apparatus is used with a scanning type exposure apparatus to perform "Mix and Match method" (see col.6, lines 5-30 and abstract). In view of such teaching, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teachings of Ushida and Nishi to obtain the invention as specified in the above claims. It would have been obvious to employ one exposure apparatus being a scanning type exposure apparatus and the other being a stationary type exposure apparatus as suggested by Nishi into the device/method of Okamoto so that "it is

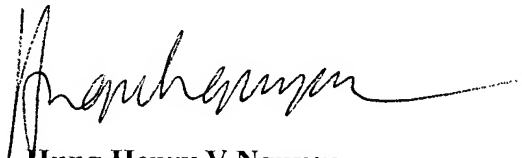
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possible to make the most of the advantages of both the step and repeat method and the step and scan method fully” and improve the quality of the images to be printed.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Henry V. Nguyen whose telephone number is 571-272-2124. The examiner can normally be reached on Monday-Friday (First Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Judy Nguyen can be reached on 571-272-2258. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Hung Henry V Nguyen
Primary Examiner
Art Unit 2851

hvn
3/11/05